

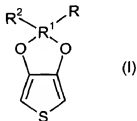
WHAT IS CLAIMED IS:

1. A process for preparing polythiophenes comprising

(1) reacting

(a) one or more thiophenes of the general formula (I)

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wherein R^1 is an unsubstituted or substituted alkylene or an alkenylene radical having from 1 to 10 carbon atoms, and

10 R and R^2 , independently of one another, are hydrogen, a linear or branched alkyl radical having from 1 to 20 carbon atoms, OH, $O-CH_2-CH_2-CH_2-SO_3H$ or O-alkyl having 1-18 carbon atoms,

(b) at least one compound containing one or more sulfonic acid groups,

15 (c) at least one oxidant,

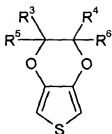
(d) at least one phase-transfer catalyst, and

(e) optionally one or more catalysts, other than the at least one phase-transfer catalyst (d) with

(f) at least one anhydrous or low-water-content solvent at
20 a temperature ranging from 0 to about 150°C , thereby forming a product, and

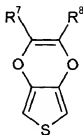
(2) subsequently working up the product.

2. The process according to Claim 1, wherein the thiophene of the formula (I) is a thiophene of the general formula (II) or (III)



(II)

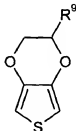
or



(III)

- 5 wherein R^3 , R^4 , R^5 , R^6 , R^7 and R^8 are hydrogen atoms, alkyl groups having from 1 to 20 carbon atoms, a hydroxymethyl groups, or alkoxy-methyl groups having from 1 to 20 carbon atoms which are unsubstituted or substituted by sulfonic acid groups.

3. The process according to Claim 1, wherein the thiophene of
10 the formula (I) is a thiophene of the formula (IV)



(IV)

- wherein R^9 is hydrogen or an alkyl radical having from 1 to 20
15 carbon atoms.

4. The process according to Claim 1, wherein the compound containing one or more sulfonic acid groups is at least one compound selected from the group consisting of polystyrenesulfonic acids and

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wherein the polythiophene is a solid, a dispersion or a solution.

11. The polythiophene of Claim 10, wherein the polythiophene is a conductive coating or an anti-static coating.

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